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10/560,743	12/15/2005	James G. Hildebrandt	32149.001	1692
7590	08/18/2010		EXAMINER	
Susan S. Jackson Kennedy Covington Lobdell & Hickman, L.L.P. Hearst Tower, 47th Floor 214 North Tryon Street Charlotte, NC 28202			PAUL, DISLER	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/560,743	HILDEBRANDT, JAMES G.	
	<b>Examiner</b>	<b>Art Unit</b>	
	DISLER PAUL	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 August 2010.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 2-3;5-21;23-31 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 2-3;5-21;23-31 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                             |                                                                   |
|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|                                                                                                             | 6) <input type="checkbox"/> Other: _____ .                        |

## DETAILED ACTION

### ***Response to Amendment***

In regard to the applicants amended claims as in 1, in concerning the headset apparatus comprising: "wherein the at least one first tube is continuous with the at least one second tube at respective first ends thereof and the first and second speakers are positioned between the first and second outlets " have been further analyzed and is rejected over new prior art as in Redmer et al. (US 2004/0037444 A1) and Huang (US 2003/0103637 A1). (please see claim 2 rejection analysis above for complete rejection).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3; 5-6; 8; 14-18; 20; 24-28; 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redmer et al. (US 2004/0037444 A1) and Huang (US 2003/0103637 A1).

Claim 2, Redmer et al. disclose of a headset apparatus comprising: at least first speaker; each speaker comprising a speaker chamber extending posteriorly therefrom (fig.5-6 (40; 42; 88); par [0029-0030; 0041]/the singular speaker includes a chamber

which extend posteriorly therefrom); at least one first tube connected adjacent a first end thereof anterior to the first speaker (fig.9 (48,50); fig.3 (50; 52); par [0030]).

However, Redmer et al. fail to disclose of the apparatus comprising: at least first and second speakers. But, Huang disclose of an apparatus wherein comprising: at least first speakers and second speakers (fig.3; par [0029]/the apparatus is provided with plurality of speakers) for creating multi-channel sound so that an expected multi-channel sound quality is achieved. Thus, it would have been obvious for one of the ordinary skills in the art to have modified the prior art by adding the apparatus comprising: at least first speakers and second speakers for creating multi-channel sound so that an expected multi-channel sound quality is achieved.

While, the combined teaching of Redmer et al. and Huang as a whole, disclose of one second tube connected adjacent a first end thereof anterior to the speaker (Redmer; fig.1 (40); fig.9 (48,50); fig.3 (50; 52); par [0030]) /the speaker housing as in (40) also have a second portion of tube being connected to the speaker). But, the combined teaching of Redmer et al. and Huang as a whole, failed to disclose of such one second tube connected adjacent a first end thereof anterior to the second speaker. But, it would have been obvious for one of the ordinary skills in the art to "have tried" in modifying the second tube connected adjacent a first end thereof anterior to a speaker of the speaker housing as disclosed and therefore well known by implementing if desired also the second tube connected adjacent a first end thereof anterior to the

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second speaker of the speaker housing which yield predictable result so as to create the multi-channel sound to each ear of the listener.

The combined teaching of Redmer et al. and Huang as a whole, further disclose of a first outlet at a second end of the at least one first tube for positioning the at least one first outlet at a first position adjacent a user's first ear; and a second outlet at a second end of the at least one second tube for positioning the at least one second outlet at a second position adjacent a user's second ear (fig.3 (52,54); par [0030]/each ear include a tube outlet adjacent to the ear);

The combined teaching of Redmer et al. and Huang as a whole, further disclose of wherein the at least one first tube is continuous with the at least one second tube at respective first ends thereof and the first and second speakers are positioned between the first and second outlets (Redmer; fig.3 (52,54,40); ; fig.1 (40); fig.6; par [0028-0030; 0035]/the speakers (40) being mounted in the housing in the center of the leg frame of the tube and thus being positioned between the first and second outlet (52,54)).

Claim 3, the headset apparatus of claim 2, wherein the chamber is an acoustically sealed, ported or vented chamber (fig.5-6 (40; 42; 44; 88); par [0041]/the member may include a foam with the housing and thus inherently provide an acoustical seal).

Claim 5, the headset apparatus of claim 2 further comprising ear engaging members for housing the first and second outlets (fig.3 (54); par [0030]).

Claim 6, the headset apparatus of claim 2 wherein the first and second outlets each flare outwardly in a direction away from the first and second tubes respectively (fig.3 (54); par [0030]).

Claim 8, the headset apparatus of claim 2 wherein the chamber is provided with sound absorbing material on a rearwardly disposed interior surface thereof (fig.5-6 (40; 42; 44; 88); par [0041]/the member may include a foam with the housing and thus inherently provide an acoustical seal).

Claim 14, the headset apparatus of claim 5, wherein the ear engaging members are provided with sound absorbing material on an inner surface thereof (fig.10-12; par [0031-0032]/the ear engaging member with sound absorbing material).

Claim 15, the headset apparatus of claim 5 wherein the ear engaging members are perforated (fig.12; par [0031]/the open ear engaging member is provided).

Claim 16, the headset apparatus of claim 2 wherein the at least one first and second speakers and the at least one first and second tubes are positioned generally on top of a user head or in a substantially horizontal plane generally at sides of a user head (fig.1

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(40,,50); fig.3; par [0025]/the speakers and tube to be worn in the back side of the head).

Claim 17, the headset apparatus of claim 2 comprising four or more speakers (fig.3; par [0029]/the apparatus is provided with plurality of speakers) for creating multi-channel sound while all sound channels won't be mixed with one another so that an expected multi-channel sound quality is achieve. Thus, it would have been obvious for one of the ordinary skills in the art to have modified the prior art by adding the apparatus comprising: four or more speakers for creating multi-channel sound while all sound channels won't be mixed with one another so that an expected multi-channel sound quality is achieve.

Claim 18, the headset apparatus of claim 17 comprising at least 4 speakers, but, the combined teaching of Redmer et al. and Huang as a whole, failed to disclose of the specific wherein a third tube is connected adjacent a first end thereof to a third speaker, a second end of the third tube terminating at a third outlet for positioning at a third position adjacent the user's first ear, and; a fourth tube is connected adjacent a first end thereof to a fourth speaker, a second end of the fourth tube terminating at a fourth outlet for positioning at a fourth position adjacent the user' s second ear, wherein the third

tube is continuous with the fourth tube at respective first ends thereof and the third and fourth speakers are positioned between the third and fourth outlets.

But, it would have been obvious for one of the ordinary skills in the art to have tried in modifying the tube connected adjacent a first end thereof to a speaker and a second end of the tube connected terminating at an outlet for positioning at a position adjacent to the user's ear and having a second tube being connected adjacent to a first end of a second speaker wherein the first tube is continuous with the second tube at respective first ends thereof and the first and second speakers are positioned between the third and fourth outlets as disclosed above to have if desired also implementing other additional speakers with tubes wherein the third tube is connected adjacent a first end thereof to a third speaker, a second end of the third tube terminating at a third outlet for positioning at a third position adjacent the user's first ear, and; a fourth tube is connected adjacent a first end thereof to a fourth speaker, a second end of the fourth tube terminating at a fourth outlet for positioning at a fourth position adjacent the user' s second ear, wherein the third tube is continuous with the fourth tube at respective first ends thereof and the third and fourth speakers are positioned between the third and fourth outlets which yield predictable results so as to provide the multi-channel sound signals acoustic conduit for delivering the sound to the ears of the listening.

Claim 24, the headset apparatus of claim 2, wherein the first and second speakers are positioned between the first and second outlets on either side of and a distance from the

centerline of an acoustic path formed by the first and second tubes (fig.1 (40); fig.3 (A); par [0028]).

Re claim 20, the headset apparatus of claim 2, but, the combined teaching of Redmer et al. and Huang as a whole, failed to disclose of further comprising an electronic controller to control emissions of the first and second speakers. But, official notice is taken the concept of having an electronic controller to control emissions of speakers is well known in the art, thus, it would have been obvious for one of the ordinary skill in the art to have modified the prior art with the electronic controller to control emissions of speakers for enabling the user to manually adjusting the speakers output.

Claim 25, the headset apparatus of claim 2, wherein include a tube length between the first speaker and the first outlet and also a tube length between the first speaker and the second outlet (fig.3 -4(40, 50, 54)/ the headset include a tube length from the speaker to each of the outlet (54).

However, the combined teaching of Redmer et al. and Huang as a whole, failed to disclose of the specific wherein a tube length between the first speaker and the first outlet is less than a tube length between the first speaker and the second outlet.

But, it would have been obvious for one of the ordinary skills in the art to have modified the prior art by substituting if desired the tube length between the speaker and

the outlet for a tube length between the first speaker and the first outlet is less than a tube length between the first speaker and the second outlet which yield no unexpected result so as to produce the acoustical signal to each ear of the listener via the tube.

Claim 26, the headset apparatus of claim 2, wherein include a tube length between the speaker and the first outlet and also a tube length between the speaker and the second outlet (fig.3 -4(40, 50, 54)/ the headset include a tube length from the speaker to each of the outlet (54).

However, the combined teaching of Redmer et al. and Huang as a whole, failed to disclose of the specific wherein a tube length between the second speaker and the second outlet is less than a tube length between the second speaker and the first outlet.

But, it would have been obvious for one of the ordinary skills in the art to have modified the prior art by substituting if desired the tube length between the speaker and the outlets for a tube length between the second speaker and the second outlet is less than a tube length between the second speaker and the first outlet which yield no unexpected result so as to produce the acoustical signal to each ear of the listener via the tube.

Claim 27, the headset apparatus of claim 25, similarly, the combined teaching of Redmer et al. and Huang as a whole, failed to disclose of wherein the tube length

between the first speaker and the first outlet is the same as a tube length between the second speaker and the second outlet.

But, it would have been obvious for one of the ordinary skills in the art to have modified the prior art by substituting if desired the tube length between the speaker and the outlets for the tube length between the first speaker and the first outlet is the same as a tube length between the second speaker and the second outlet which yield no unexpected result so as to produce the acoustical signal to each ear of the listener via the tube.

Claim 28, the headset apparatus of claim 26, wherein the tube length between the second speaker and the second outlet is the same as a tube length between the first speaker and the first outlet (see claim 27 rejection as presented).

Claim 30, the headset apparatus of claim 18, wherein the third and fourth speakers are positioned between the third and fourth outlets on either side of and a distance from the centerline of an acoustic path formed by the third and fourth tubes (fig.1 (40); fig.3 (40, 50, 54); par [0028; 0030]/the speaker housing being center of the outlets a distance from the centerline of an acoustic path form by the tubes (50)).

Claim 31, the headset apparatus of claim 18, wherein include a tube length between the speakers and the outlets (fig.1 (40,20,50)/the housing speaker (50) with tube length for acoustic passage (50; par [0030]).

However, the combined teaching of Redmer et al. and Huang as a whole, failed to disclose of wherein a tube length between the third speaker and the third outlet is less than a tube length between the third speaker and the fourth outlet, a tube length between the fourth speaker and the fourth outlet is less than a tube length between the fourth speaker and the third outlet, and the tube length between the third speaker and the third outlet is substantially the same as the tube length between the fourth speaker and the fourth outlet.

But, it would have been obvious for one of the ordinary skills in the art to have tried in modifying the tube length between the speakers and the outlets so as to further implement if desired such tube length between the third speaker and the third outlet is less than a tube length between the third speaker and the fourth outlet, a tube length between the fourth speaker and the fourth outlet is less than a tube length between the fourth speaker and the third outlet, and the tube length between the third speaker and the third outlet which yield no unexpected result so as to transmit the multi-channel acoustic signal to the listeners ears.

Claims 23; 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redmer et al. (US 2004/0037444 A1) and Huang (US 2003/0103637 A1) and Yuugo (JP 57-041095).

Claim 23, the headset apparatus of claim 2, wherein the at least one first tube is continuous with the at least one second tube at respective first ends thereof with the speaker (fig.3 (50, A-A); par [0030]).

However, the combined teaching of Redmer et al. and Huang as a whole, failed to disclose that the first tube is continuous with the at least one second tube at respective first ends thereof such that tube paths of the at least one first tube and the at least one second tube are formed to meet intermediate the first and second speakers.

But, Yuugo disclose of a system wherein a first tube is continuous with the at least one second tube at respective first ends thereof such that tube paths of the at least one first tube and the at least one second tube are formed to meet intermediate the first and second speakers (abstract; fig.1 (10, 71;81); the tubes are continuous with one speaker with the other and having an attenuator) so as to create the spatial stereophonic sound effect between the two channel tube. thus, it would have been obvious for one of the ordinary skills in the art to have modified the prior art by adding the first tube is continuous with the at least one second tube at respective first ends thereof such that tube paths of the at least one first tube and the at least one second

tube are formed to meet intermediate the first and second speakers so as to create the spatial stereophonic sound effect between the two channel tube.

Claim 29, the headset apparatus of claim 18, wherein the third tube is continuous with the fourth tube at respective first ends thereof such that tube paths of the third tube and the fourth tube are formed to meet intermediate the third and fourth speakers (see claim 23 rejection analysis above).

Claims 7; 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redmer et al. (US 2004/0037444 A1) and Huang (US 2003/0103637 A1) and Meucci Jr (US 6,038,330).

Claim 7, the headset apparatus of claim 2, but, the combined teaching of Redmer et al. and Huang as a whole, fail to disclose of wherein the chamber is a ported or vented chamber. But, Meucci Jr. disclose of a headset wherein having a chamber as being ported or vented chamber (fig.5 (70); col.8 line 25-35/chamber with opening) so that the wire may be routed outward through the open end and terminated in a suitable electrical connector. Thus, it would have been obvious for one of the ordinary skills in the art to have implemented the chamber is a ported or vented chamber so that the wire may be routed outward through the open end and terminated in a suitable electrical connector.

Re claim 9, the headset apparatus of claim 2, but, the combined teaching of Redmer et al. and Huang as a whole, fail to disclose of the wherein at least one of the first and second tubes is provided with sound absorbing material therein between a respective first end thereof and a respective first or second speaker. But, Meucci Jr. disclose of a headset wherein having the first and second tubes is provided with sound absorbing material therein between a respective first end thereof and a respective first or second speaker (fig.5 (58); fig.4 (80); col.7 line 25-40) so as to reduced the sound from propagating inward to the interior chamber and the ear of the listener. Thus, it would have been obvious for one of the ordinary skills in the art to have modified the prior art with implementing the first and second tubes is provided with sound absorbing material therein between a respective first end thereof and a respective first or second speaker so as to reduced the sound from propagating inward to the interior chamber and the ear of the listener.

Re claim 10, the headset apparatus of claim 9, wherein the sound absorbing material being provided (fig.5 (58); fig.4 (80); col.7 line 25-40/sound being provided along the tube in reducing sound signal as desired). However, the combined teaching of Redmer et al. and Huang and Meucci Jr. as a whole, failed to disclose of the specific wherein the sound absorbing material as substantially blocks the at least one of the first and second

tubes. But, it would have been obvious for one of the ordinary skills in the art to have tried in modifying the sound absorbing material by including if needed to have implemented the sound absorbing material as substantially blocks the at least one of the first and second tubes which yield predictable result so as to reduce and control the sound level being provided to the user's ear.

Re claim 11, the headset apparatus of claim 9, wherein the sound absorbing material being provided (fig.5 (58); fig.4 (80); col.7 line 25-40/sound being provided along the tube in reducing sound signal as desired). However, the combined teaching of Redmer et al. and Huang and Meucci Jr. as a whole, failed to disclose of the specific wherein the sound absorbing material as partially blocks the at least one of the first and second tubes. But, it would have been obvious for one of the ordinary skills in the art to have tried in modifying the sound absorbing material by including if needed to have implemented the sound absorbing material as partially blocks the at least one of the first and second tubes which yield predictable result so as to reduce and control the sound level being provided to the user's ear.

Claim 12-13; 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redmer et al. (US 2004/0037444 A1) and Huang (US 2003/0103637 A1) and Yamagishi (US 5,459, 290).

Re claim 12, the headset apparatus of claim 2 further comprising at least one speaker adjacent the user ear, but, the combined teaching of Redmer et al. and Huang as a whole, failed to disclose of wherein the speaker being of a bass speaker. But, Yamagishi disclose of a headset wherein the specific wherein the speaker being of a bass speaker adjacent the use ear (col.5 line 5-30) for purpose of producing sound in wide frequency band for improve sound. Thus, it would have been obvious for one of the ordinary skill in the art to have modified the prior art by having the speaker being of a bass speaker adjacent the use ear for purpose of producing sound in wide frequency band for improve sound.

Re claim 13, the headset apparatus of claim 12 wherein the at least one bass speaker is housed within an ear engaging member (fig.1-3).

Re claim 21, the headset apparatus of claim 2, But, the combined teaching of Redmer et al. and Huang as a whole, failed to disclose of the further comprising a slider joint between the ear engaging members and the first and second outlets for enabling adjustment of a connection length between the ear engaging members and the first and second outlets when the user ear is moved relative to the headset apparatus. But, Yamagishi disclose of a headset wherein a slider joint between the ear engaging members and the first and second outlets for enabling adjustment of a connection length between the ear engaging members and the first and second outlets when the user ear is moved relative to the headset apparatus ((fig.8; col.5 line 55-67) for purpose

of enabling a user to adjust the apparatus in the ear. Thus, it would have been obvious for one of the ordinary skill in the art to have modified the prior art by including a slider joint between the ear engaging members and the first and second outlets for enabling adjustment of a connection length between the ear engaging members and the first and second outlets when the user ear is moved relative to the headset apparatus for purpose of enabling a user to adjust the apparatus in the ear

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Redmer et al. (US 2004/0037444 A1) and Huang (US 2003/0103637 A1) and Shen et al. (US 2002/0181727 A1).

Claim 19, the headset apparatus of claim 18, but, the combined teaching of Redmer et al. and Huang and Shen et al. as a whole, failed to disclose of wherein the first and second speakers are front-left and front-right speakers and the third and fourth speakers are rear-left and rear-right speakers.

But, Shen et al. disclose of a headset apparatus wherein the first and second speakers are front-left and front-right speakers and the third and fourth speakers are rear-left and rear-right speakers (fig.3 (21,23); par [0017]) so as to provide a surround sound effect. Thus, it would have been obvious for one of the ordinary skills in the art to have modified the prior art by adding the headset apparatus wherein the first and

second speakers are front-left and front-right speakers and the third and fourth speakers are rear-left and rear-right speakers so as to provide a surround sound effect.

The combined teaching of Redmer et al. and Huang and Shen et al. and as a whole, further disclose of the specific wherein the first and second tubes connected adjacent thereto terminate in the anterior portion of left and right ear cups respectively (fig.3 (52,54); ear tube being connected anterior to each ear cups) .

But, the combined teaching of Redmer et al. and Huang and Shen et al. and as a whole, failed to disclose of wherein the third and fourth tubes connected adjacent thereto terminate in the posterior portion of left and right ear cups respectively.

But, it would have been obvious for one of the ordinary skills in the art to have tried if desired in modifying the first and second tubes connected adjacent thereto terminate in the anterior portion of left and right ear cups respectively as disclosed (fig.3 (52,54); ear tube being connected anterior to each ear cups) with also including the third and fourth tubes connected adjacent thereto terminate in the posterior portion of left and right ear cups respectively which yield predictable result so as to mate the acoustic passage with the ear for providing ear support.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DISLER PAUL whose telephone number is (571)270-1187. The examiner can normally be reached on 10-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on (571) 272-78-48. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./  
Examiner, Art Unit 2614

/Devona E. Faulk/  
Primary Examiner, Art Unit 2614